Dance and Math Infused Lesson

**The Beat Goes On**
Authors: Kasey Tuttle, Tracy Whitley, Turner Cagle, with Joanne Petroff  
Grade Level: Pre-kindergarten

**Enduring Understanding**
The body can be used to count the beat of the music. The beat or pulse from music and dance can represent numbers we use in counting.

**Lesson Description** (Use for family communication and displaying student art)
While hearing the music and moving their bodies, children count while keeping a beat. They do body percussion to the beat of a chant about Snowy the Snowman. Students count eight beats for each line of the chant. They choreograph movements to match the meaning and the beat of the chant.

**Learning Targets and Assessment Criteria**

**Target:** Demonstrates the pulse of the music by using body percussion.  
**Criteria:** Taps on knees and uses other body movements to keep the beat of the chant.

**Target:** Demonstrates understanding of the quantity of eight.  
**Criteria:** Taps, claps, and counts eight beats for each line of the chant.

**Target:** Demonstrates perseverance.  
**Criteria:** Practices movements to improve accuracy in keeping the beat.

**Target:** Choreographs and dances the chant.  
**Criteria:** Creates movements and performs for eight counts of each line of *Snowy the Snowman.*

**Vocabulary**
Arts/Math Infused: 
- Beat  
- Pulse  

Math: 
- Counting  
- Quantifying  

Arts: 
- Choreograph  
- General Space  
- Movement  
- Self-space

**Materials**

**Museum Artworks or Performance**
- **Seattle, WA**  
  Pacific Northwest Ballet

- **Tacoma, WA**  
  Broadway Center for the Performing Arts

**Materials**
- *Itsy Bitsy Spider* chant; *Snowy the Snowman* chant; Class Assessment Worksheet

**Music:**  
- "The Beat Goes On" from *The Beat Goes On*, Herbie Mann (instrumental)

**Learning Standards**

**WA Arts State Grade Level Expectations**
For the full description of each WA State Arts Grade Level Expectation, see:  
[http://www.k12.wa.us/Arts/Standards](http://www.k12.wa.us/Arts/Standards)

1.1.1 Elements: Place  
1.1.2 Elements: Time  
1.2.1 Techniques and Skills: Locomotor Movements and Non-Locomotor Movements  
2.1.1 Creative Process  
4.2.1 Connection between Dance and Math

**Early Learning Guidelines**
For a full description of Washington State Early Learning and Child Development Guidelines see:  
(Age 3–4) 3. Touching, seeing, hearing and moving around: Using the senses: move the body to music or rhythm.  
(Age 3–4) 6. Learning about my world: Math: Count to ten and beyond by rote.
ARTS IMPACT Early Learning Arts Infusion – Dance: The Beat Goes On

** ICON KEY:**

- indicates note or reminder for teacher
- indicates embedded assessment points in the lesson

**Video:**
- Keith Terry: http://www.youtube.com/watch?v=3Ysq0rh5ZaQ
- Riverdance, The Final Performance: http://www.youtube.com/watch?v=FoHRQScWi0
- Stomp: http://www.youtube.com/watch?v=WaCgZMySvX8 http://www.youtube.com/watch?v=zYXUm8GgPjE

**Common Core State Standards (CCSS) in Math**
http://www.k12.wa.us/CoreStandards/Mathematics/default.aspx

- K.CC Know number names and count sequence.
- K.CC Count to tell the number of objects.
- K.CC Compare numbers.

**CCSS Mathematical Practices**
- 2. Reason abstractly and quantitatively.
- 4. Model with mathematics.
- 7. Look for and make use of structure.
### Pre-Teach

Using the melody from *Itsy Bitsy Spider*, teach the version called *Snowy The Snowman* (created by the teachers and students of the MCFHC which you can find in lesson step two, or create your own).

### Lesson Steps Outline

**Day One**

1. Lead students in BrainDance warm-up (originally developed by Anne Green Gilbert). Have the students practice their counting skills by joining you in counting the number of times you perform a movement.

2. Guide students to experience the pulse of chant. Lead students in chanting the rewritten version of *Itsy Bitsy Spider* (*Snowy the Snowman*) using movements while doing the actions on the beat but not counting out loud.
   - Criteria-based teacher checklist: Taps on knees and uses other body movements to keep the beat of the chant.

3. Guide exploration of chant with body percussion and other body movements and counting the beats out loud. Challenge the students to use the 21st Century Skill of Perseverance as they practice the chant multiple times.
   - Criteria-based teacher checklist: Taps on knees and uses other body movements to keep the beat of the chant. Taps, claps, and counts eight beats for each line of the chant. Practices movements to improve accuracy in keeping the beat.
Day Two

1. Show video of professional performers using body percussion.

2. Lead students in BrainDance warm-up.
   Music: “The Beat Goes On” from The Beat Goes On, Herbie Mann (instrumental)

3. Review exploration of chant with body percussion and other body movements counting the beats.
   ☑ Criteria-based teacher checklist: Taps on knees and uses other body movements to keep the beat of the chant. Taps, claps, and counts eight beats for each line of the chant.

4. Guide students to choreograph and perform movements for the chant.
   ☑ Criteria-based teacher checklist, self-assessment: Creates movements and performs for eight counts of each line of Snowy the Snowman.
Day One

1. Lead students in BrainDance warm-up. Have the students practice their counting skills by joining you in counting the number of times you perform a movement. (BrainDance originally developed by Anne Green Gilbert, [www.creativedance.org](http://www.creativedance.org), reference: *Brain-Compatible Dance Education*, video: *BrainDance, Variations for Infants through Seniors*).


You may choose other music for the BrainDance. Look for instrumental music with a strong beat.

- We’ll use the BrainDance to warm up our bodies to get us ready to dance. It will make our brains work better at the same time.
- Let’s count out loud as we do each movement.

Breath:

- Your muscles and your brain need oxygen, so inhale through your nose and exhale through your mouth like you are blowing out a candle. Breathe deeply. Use your finger to show me as you blow out 1 candle. Now 2 fingers to represent 2 candles, 3 candles.

Tactile:

- Wake up your hands. Tap from the top of your head all the way to your toes. Let’s count 8 taps down then 8 counts up. Count with me.

Core-Distal:

- Grow into a big shape. Shrink into a small shape. Grow into a bigger shape. Shrink into a smaller shape. Try tilting and balancing your big shape.

Head-Tail:

- (On hands & knees) Curl your spine, rounding and arching like “cat/cow”. Wag your tail. Shake your head. Do both at once.

Upper Half:

- The top half of your body dances, while the lower half is frozen. Do 8 counts of upper body movements with individual upper body parts, like finger movements. Do small movements with your hands. Make the movement smaller by just moving your fingers. Make the actions bigger by using your whole arm as you make big circles.

Lower Half:

- The lower half of your body dances, while the upper half is frozen. Do 8 count movements with your lower body. Draw circles with your feet. Draw squares.

Body-Half Right:

- Your left side is frozen and only the right side dances. Make half of a butterfly, then half of a lizard. Do movements for 8 counts each.

Body-Half Left:

- The right side is frozen and the left half dances. Make half of a butterfly, then half of a lizard. Do movements for 8 counts each.

Cross-Lateral:

- Use your hands to draw lines crossing in front of your body. What other crisscross movements can we do? Let’s do them for 8 counts.
Eye Tracking:
- Keep your eyes on your right hand. Move it from one side to the other and up and down. Watch your left hand as you move it from side to side and up and down.

Spin/Vestibular:
- Swing and jump, then turn and freeze in a shape for 8 counts. Repeat.

Breathe:
- Breathe quietly.

2. Guide students to experience the pulse of a chant. Lead students in chanting the rewritten version of *Itsy Bitsy Spider (Snowy the Snowman)* using movements while doing the actions on the beat but not counting out loud.

- Let’s say out chant about Snowy the Snowman! We’ll tap on our knees on each beat.

There are 8 beats in each line of the song. So students will tap eight times for each line.

- Snowy the snowman was rolling by a flame. (breathe)
  It was very hot and his body began to change. (breathe)
  Then came the kids and they just wanted to play. (breathe)
  They made another snowman that didn’t melt away. (breathe)

Repeat with clapping for 8 beats per line, then tapping feet, then shrugging shoulders.

Criteria-based teacher checklist: Taps on knees and uses other body movements to keep the beat of the chant.

3. Guide exploration of chant with body percussion and other body movements and counting the beats out loud. Challenge the students to use the 21st Century Skill of Perseverance as they practice the chant multiple times.

- We are going to do Snowy the Snowman again and this time while you say the chant and tap your knees, I’ll count out loud to eight for each line of the song, saying one count for each beat.

Repeat with clapping hands, shoulders, heads, etc.

- Divide class in two groups. One group will help the teacher with the chant while the other group will do movements.

  - This time, let’s march through the general space for 7 counts and jump on the 8th count. Count the numbers out loud while you move. I’ll say the chant.

- We are going to keep practicing so we will be really good at keeping the beat. That’s the 21st Century Skill of Perseverance! Will you repeat that word with me? PER-SE-VER-ANCE. Let’s tap the word into our shoulders while we say it again PER-SE-VER-ANCE. Now let’s tap while crisscrossing. Tap your right shoulder with your left hand and tap your left shoulder with your right hand. PER-SE-VER-ANCE. We just used body percussion to help us remember our skill — perseverance!
• Dancers show perseverance when they practice! So let’s practice again. March around the room and add a stomp on the eighth count.

☑ Repeat with several different movements (e.g. spin, clap, snap).

☒ Criteria-based teacher checklist: Taps on knees and uses other body movements to keep the beat of the chant. Taps, claps, and counts eight beats for each line of the chant. Practices movements to improve accuracy in keeping the beat.
Day Two

1. Show video of professional performers using body percussion.
   Video examples:
   Keith Terry: http://www.youtube.com/watch?v=3Ysq0rh5ZaQ
   Riverdance, The Final Performance: http://www.youtube.com/watch?v=F0HlrQScWl0
   Stomp: http://www.youtube.com/watch?v=WaCqZMySvX8
   http://www.youtube.com/watch?v=zYXUm8GgPjE

   • We use body percussion when we do Snowy the Snowman. We use our bodies to make the sound instead of instruments.

   • Here are videos of professionals using body percussion. What do you see? What is the same? What is different?

2. Lead students in BrainDance warm-up.
   Music: “The Beat Goes On” from The Beat Goes On, Herbie Mann (instrumental)

3. Review exploration of chant with body percussion and other body movements counting the beats.

   • Let’s review our Snowy the Snowman chant. While you say the chant and tap your knees, I’ll count to eight for each line of the song, saying one count for each beat.

     ▪ Repeat with clapping hands, shoulders, heads etc.

     • Now, it’s your job to count and do the tapping movements, and I’ll say the chant.

     • Let’s march through the general space for 7 counts and jump on the 8th count. Count the numbers out loud while you move. I’ll say the chant.

     ▪ Repeat with other movements through general space. Try other self-space movements.

     ▪ Divide class in two. One group will help teacher with chant while other group will do movements.

     ✔ Criteria-based teacher checklist: Taps on knees and uses other body movements to keep the beat of the chant. Taps, claps, and counts eight beats for each line of the chant.

4. Guide students to choreograph and perform movements for the chant.

   • Let’s make some choices about what movements we will do in our chant so we will all be doing the same movements at the same time. That means we will be the choreographers of our dance.

   • How can we make the actions in the first eight counts of the chant? What movements should we do that help to show the meaning of the words? How many counts do you think we will be using?

     ▪ Continue the process so you can develop eight counts of movement for each line of chant.

   • Now that we have chosen movements for each line, let’s do the whole dance!
Does our movement show what happens in our chant? Is it on the beat?

☑ Criteria-based teacher checklist, self-assessment: Creates movements and performs for eight counts of each line of *Snowy the Snowman*. 
## ARTS IMPACT LESSON PLAN
Dance and Math Infused Lesson

### Pre-kindergarten: The Beat Goes On

## CLASS ASSESSMENT WORKSHEET

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Concept</th>
<th>DANCE</th>
<th>DANCE/MATH</th>
<th>DANCE</th>
<th>DANCE</th>
<th>Total</th>
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<tbody>
<tr>
<td>Criteria</td>
<td></td>
<td>Beat</td>
<td>Counting</td>
<td>Perseverance</td>
<td>Choreography</td>
<td></td>
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<tr>
<td>Student Name</td>
<td></td>
<td>Taps on knees and uses other body movements to keep the beat of the chant.</td>
<td>Taps, claps, and counts eight beats for each line of the chant.</td>
<td>Practices movements to improve accuracy in keeping the beat.</td>
<td>Creates and performs for eight counts of each line of Snowy the Snowman.</td>
<td>4</td>
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Total 
Percentage

*What was effective in the lesson? Why?*

*What do I want to consider for the next time I teach this lesson?*

*What were the strongest connections between dance and math?*

Teacher: ___________________________  Date: _______________
Dear Family:

Today your child participated in an Arts and Math lesson. We talked about counting and body percussion, using our bodies as the instruments to make the sounds.

- We discovered how to move and count while keeping the beat.
- We counted eight beats for every line of our Snowy the Snowman chant.
- We created a dance that showed the meaning and the beat of the chant.

At home, you could make music together by using your bodies with body percussion. Clap or tap to the beat of a song on the radio or iPod.

**Enduring Understanding**

| The body can be used to count the beat of the music. |
| The beat or pulse from music and dance can represent numbers we use in counting. |